

INCH-POUND

MIL-D-83531A
AMENDMENT 3
26 June 1995
SUPERSEDING
AMENDMENT 2
30 March 1995

MILITARY SPECIFICATION

DELAY LINES, PASSIVE,
GENERAL SPECIFICATION FOR

This amendment forms a part of MIL-D-83531A, dated 9 August 1993, and is approved for use by all Departments and Agencies of the Department of Defense.

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- * 2.1.1, SPECIFICATIONS, FEDERAL, delete "QQ-S-571".
- * 2.1.1, SPECIFICATIONS, MILITARY, delete "MIL-F-14256".
- * 2.1.1, STANDARDS, MILITARY, delete "MIL-STD-454" and "MIL-STD-45662".
- * 2.2, add the following Non-Government publications and address:
 - "ANSI/NCSL Z540-1 - Calibration Laboratories and Measuring and Test Equipment - General Requirements.
 - ISO 10012-1 - Quality Assurance Requirements for Measuring Equipment - Part 1: Metrological Confirmation System for Measuring Equipment.

(Application for copies should be addressed to the American National Standards Institute (ANSI), 11 West 42nd Street, New York, NY 10036-8002.)"

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- * 3.4.3, delete and substitute:

"3.4.3 Solder and soldering flux. Solder and soldering flux shall be of such a quality as to enable the delay lines to meet all the requirements of this specification. "

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- * 3.4.7, after "J-W-1177", add "(or equivalent)".
- * 3.4.8, delete entire paragraph.
- * 3.5, delete and substitute:

"3.5 Interface and construction. Delay lines shall be of the design, construction, and physical dimensions specified in the applicable specification sheets (see 3.1), and shall meet all performance requirements and product characteristics specified herein. After qualification, any changes in parts or materials shall be submitted to the Government qualifying activity for approval. "

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- * 4.1.2, delete "MIL-STD-45662" and substitute "ANSI/NCSL Z540-1, ISO 10012-1, or equivalent system as approved by the qualifying activity."

AMSC N/A

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- * TABLE II, subgroup I, after "Seal", add "(metal cases only)".
- * TABLE II, subgroup I, move "Distortion (output only)" to subgroup II, and insert under "Voltage attenuation (output only)".

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4.5.1.2.1.3, delete and substitute:

"4.5.1.2.1.3. Subgroup III. Five samples shall be randomly selected from each inspection lot and subjected to the solderability test. The manufacturer may use electrical rejects from the subgroup I screening tests, or dummy units which were processed at the same time as the inspection lot, for all or part of the samples to be used for solderability testing. Dummy units, if used, shall be clearly marked as such. If there are one or more defects, the lot shall have failed."

4.5.2.1, delete and substitute:

"4.5.2.1 Sample. The number of sample units shall be as specified in 4.5.2.1.1 and 4.5.2.1.2.

4.5.2.1.1 Single-type submission. A sample consisting of 14 units of the specific delay line for which requalification is sought.

4.5.2.1.2 Combined-type submission. To requalify all parts on an individual specification sheet, test samples shall be selected as follows:

- a. Seven sample units of the lowest nominal characteristic impedance, total delay time, and maximum attenuation by impedance for which requalification is sought, shall be tested.
- b. Seven sample units of the highest nominal characteristic impedance, with the associated highest total delay time and maximum attenuation by impedance for which requalification is sought, shall be tested."

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TABLE IV: Delete and substitute:

" TABLE IV. Regualification inspection.

Inspection	Requirement paragraph	Test method paragraph	Number of sample units		Number of allowable failures	
			Single submission	Combined submission	Single submission	Combined submission
<u>Group I</u>						
Dimensions	3.5.1	4.6.2				
Thermal shock (50 cycles)	3.6	4.6.4	14	7	2	1
Seal	3.7	4.6.5				
Electrical characteristics	3.8	4.6.6				
Visual inspection	3.5.2	4.6.3				
<u>Group II</u>						
Resistance to solvents <u>1/</u>	3.9	4.6.7				
Solderability	3.10	4.6.8				
Moisture resistance	3.11	4.6.9				
Salt spray (corrosion) (metal cases only)	3.12	4.6.10	4	2	0	0
Vibration	3.13	4.6.11				
Shock	3.14	4.6.12				
Electrical characteristics	3.8	4.6.6				
Visual inspection	3.5.2	4.6.3				
<u>Group III</u>						
Life	3.15	4.6.13				
Terminal strength	3.16	4.6.14				
Fungus <u>2/</u>	3.17	4.6.15				
Electrical characteristics	3.8	4.6.6	4	2	0	0
Dielectric withstanding voltage at reduced barometric pressure	3.18	4.6.16				
Visual inspection	3.5.2	4.6.3				
<u>Group IV</u>						
Resistance to soldering heat	3.19	4.6.17	4	2	0	0
Flammability	3.20	4.6.18				

- 1/ Units from group IV may be used to fulfill the minimum sample size required for the resistance to solvents test only when using the combined-type submission.
- 2/ The fungus test need not be performed if the manufacturer provides certification that all external materials are nonnutrient to fungus growth or suitably treated to retard fungus growth. "

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* 5.1, delete and substitute:

"5.1 Packaging requirements. For acquisition purposes, the packaging requirements shall be as specified in the contract or purchase order (see 6.2). When actual packaging of material is to be performed by DoD personnel, these personnel need to contact the responsible packaging activity to determine the requisite packaging requirements. Packaging requirements are maintained by the Inventory Control Point's packaging activity within the Military Department or Defense Agency, or within the Military Department's System Command. Packaging data retrieval is available from the managing Military Department's or Defense Agency's automated packaging files, CD-ROM products, or by contacting the responsible packaging activity."

The margins of this amendment are marked with asterisks to indicate where changes (additions, modifications, corrections, or deletions) from the previous amendment were made. This was done as a convenience only, and the Government assumes no liability whatsoever for any inaccuracies in these notations. Bidders and contractors are cautioned to evaluate the requirements of this document based on the entire content irrespective of the marginal notations and relationship to the last previous amendment.

CONCLUDING MATERIAL

Custodians:

Army - ER
Navy - EC
Air Force - 85

Preparing activity:

DLA - ES

(Project 5999-0333)

Review activities:

Navy - AS, CG, MC, SH
Air Force - 19, 99